

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: July 22, 1996  
Date Received: July 18, 1996  
Project: Metro Self-Monitor, PO #M53948  
Date Samples Extracted: July 19, 1996  
Date Extracts Analyzed: July 19, 1996

**RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, AND ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**  
Results Reported as  $\mu\text{g/g}$  (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M53948	0.77	0.98	1.0	0.16
Method Blank	<0.05	<0.05	<0.05	<0.05

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: July 22, 1996

Date Received: July 18, 1996

Project: Metro Self-Monitor, PO #M53948

**QUALITY ASSURANCE RESULTS  
FOR TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Laboratory Code: 70798 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	mg/L (ppm)	0.77	0.76	1	0-20
Copper	mg/L (ppm)	0.98	0.97	1	0-20
Nickel	mg/L (ppm)	1.0	1.0	0	0-20
Zinc	mg/L (ppm)	0.16	0.17	6a	0-20

Laboratory Code: 70798 (Matrix Spike)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
				<u>MS</u>	<u>MSD</u>		
Chromium	mg/L (ppm)	5	0.77	90	93	80-120	3
Copper	mg/L (ppm)	5	0.98	91	90	80-120	1
Nickel	mg/L (ppm)	10	1.0	90	92	80-120	2
Zinc	mg/L (ppm)	5	0.16	92	95	80-120	3

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
			<u>MS</u>	<u>MSD</u>		
Chromium	mg/L (ppm)	5	100	100	80-120	0
Copper	mg/L (ppm)	5	98	98	80-120	0
Nickel	mg/L (ppm)	10	101	100	80-120	1
Zinc	mg/L (ppm)	5	100	101	80-120	1


a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

KNI AI  
7.18.96  
1:15

1:15

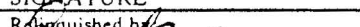
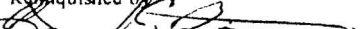
Send Report To: Alaska Copper Works Contact Gerald A. Thompson  
Company 628 4th and st  
Address Seattle WA  
City, State, Zip WA  
Phone # (206) 382-8377 FAX # (206) 382-4309 Date 7-18

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	metro self-monitoring	M 53948

SAMPLERS (signature)	PROJECT LOCATION
	3200 6 <sup>th</sup> Ave S.

REMARKS	SAMPLE DISPOSAL INFORMATION
	<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples - <input type="checkbox"/> Call for Instructions

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD A. Thompson	A.C.W	7/18/96	12:48
Received by: 	KURT JOHNSON	F.B.I	7/18/96	12:50
Relinquished by:				
Received by:				



**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D  
Beth M. Albertson, M.S.  
Bradley T. Benson  
Kelley D. Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

July 22, 1996

**INVOICE # 96ACU0722-1  
DUPLICATE COPY**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

RE: Project Metro Self-Monitor, PO #M53948: Results of testing requested by  
Gerry Thompson, Project Manager for material submitted on July 18, 1996.

1 process water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due .....

\$ 65.00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Beth M. Albertson, M.S.  
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Kelley D. Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

July 22, 1996

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on July 18, 1996  
from your Metro Self-Monitor, PO #M53948 project.

We appreciate this opportunity to be of service to you and hope you will call if you  
should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

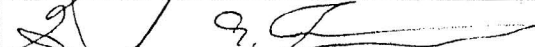


Kurt Johnson  
Chemist

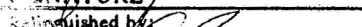
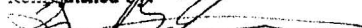
keh  
Enclosures  
ACU0722R.DOC

## SAMPLE CHAIN OF CUSTODY

Company ALASKAN Copper Works Contact GERARD Thompson  
Address 628 Harvard St  
City, State, Zip Seattle WA 98134  
Phone # (206) 382-8379 FAX # (206) 382-8309 Date 7-25-96

SITE NO.	PROJECT NAME	PURCHASE ORDER #
7238	metro self monitor	M53948
SAMPLERS (signature)	PROJECT LOCATION	
	300 6 <sup>th</sup> Ave S	
REMARKS	SAMPLE DISPOSAL INFORMATION	
	<input checked="" type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input checked="" type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD THOMPSON	A.C.W	7/25/96	11:00 AM
Received by: 	KURT JOHNSON	FB&I	7/25/96	11:04 AM
Relinquished by:				
Received by:				